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ABSTRACT

This conference was held to review the base year activities of the National Longitudinal Study of the High School Class of 1972 (NLS) and the First Followup Study. Planning also took place for the design of the Second Followup Study and the Cohort Study of the High School Class of 1977. The participants included invited consultants and representatives of the National Center for Educational Statistics and the Research Triangle Institute. A historical overview of the base year NLS discussed the research interests of the governmental agencies and the educators who would be using the data; described the sampling procedures and data analysis; and raised further questions. The second session dealt with the priorities of the first followup data analysis. A number of topics were suggested for data analysis, including: vocational education, student knowledge of federally provided financial aid, and disparity between expected achievement and actual accomplishment of the graduates. The planning session for the Second Followup investigated appropriate questionnaire items to be included in a study of the transitional activities of the respondents two years after high school graduation. The discussion of the design of the 1977 Cohort Study focused on high school and college dropouts, sample design, and overlapping with the original 1972 sample. (GDC)

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NATIONAL LONGITUDINAL STUDY
FIRST FOLLOW-UP OF THE CLASS OF 1972

FIRST PLANNING CONFERENCE

DIGEST OF PROCEEDINGS

The Burlington Hotel
Washington, D. C.

4-6 November 1973

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National Longitudinal Study
First Follow-Up of the Class of 1972

First Planning Conference

Planning Conference Participants

The First Planning Conference for the National Longitudinal Study of the High School Class of 1972 was held at the Burlington Hotel in Washington, D. C., over the three-day period, 4-6 November 1973. The purposes of the conference were to discuss priorities and advise as to plans for the overall conduct of the study, and to discuss the research priorities and plans for a study of the High School Class of 1977. Participants in the discussions included:

Invited Consultants

Dr. Jerald Bachman
Institute for Social Research
University of Michigan

Dr. Anne Cleary
College Entrance Examination Board

Dr. Thomas Hilton
Educational Testing Service

Dr. Hugh Lane
National Scholarship Service and
Fund for Negro Students

Dr. Robert Mautz
Chancellor
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Dr. Alice Rivlin
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Mr. John A. Riccobono
Eucational Research Scientist

Mrs. Frances Heald
Secretary

National Longitudinal Study
First Follow-Up of the Class of 1972

First Planning Conference: First Session
Sunday Evening, 4 November 1973

Overview, Base Year Study

Dr. Chandler opened the meeting by welcoming the group to the conference. The purpose of the first session, she said, was to discuss the base year activities of the National Longitudinal Study (NLS) of the High School Class of 1972. Essentially, this was to be a briefing by Dr. Hilton about the current data base, the growth of the study, and the various aspects of the base year work which would have effects on the conference members' discussion of the other issues to be covered later in the planning conference.

These thoughts were amplified by Dr. Davis, who noted that he saw the role of the Educational Testing Service (ETS) and Research Triangle Institute (RTI) primarily as that of contribution and the role of the National Center for Educational Statistics (NCES) as one of total commitment.

In response to a question by Dr. Cleary about a little background and history of the project, Dr. Chandler gave a thumbnail sketch of NLS. As far back as 1968, she said, NCES conducted a users study to see how the products of NCES were serving as useful tools for the rest of the educational community. Like most other users studies, this proved to be exceptionally complicated and difficult to interpret; but it seemed clear that a great many of the lacks were in types of data that could be collected only in longitudinal studies. For example, the longitudinal approach had generally been found to be more fruitful than the cross-sectional approach to certain types of questions relating to ambitions, plans, aspirations, and attitudes. The study showed that three separate units of the Office of Education (OE) had rather specific questions that only a longitudinal study could answer; therefore, an effort was made to bring together the three sets of questions into one study. The three separate organizations were the Bureau of Occupational and Adult Education; the Bureau of Higher Education; and the Office of Planning, Budgeting, and Evaluation. This aggregation of questions and issues came together under the aegis of NCES. Combining the requirements of these three offices by bringing them together into one study necessitated some compromises and concessions on the

part of each special interest, but the study appears to have come together in such a way that it will prove meaningful for all three.

Dr. Lane interjected that, having been part of the development of the program practically from its beginning, he should both agree and disagree with Dr. Chandler's summary. It was his impression that the users group Dr. Chandler referred to seemed to be dominated not so much by users in the field but by users within the Federal Government. There was another interested educational group, more technical and concerned with the methodology of longitudinal studies. Coleman's analyses indicated that there may be no effects of secondary education; the technical group was concerned with how to demonstrate effects of secondary education. Much of the deliberations of the technical group revolved around the idea that another study will not be desirable until methodology capable of detecting school effects is suggested. These technical discussions involved techniques such as oversampling and various statistical procedures, and the notion evolved that the study should focus not on a large group of schools but on students as the unit of analysis. Thus, Dr. Lane stressed, it is important to remember when considering NLS that, for a significant number of technical people, the methodology of the study is of prime concern.

Dr. Lane summed up his comments by stating that there are tensions in the community of educational users that may be quite different from those in the methodological community, perhaps because the educational community for this study consists mostly of users representing governmental agencies. Both groups have viable concerns; but it has been his experience that, when advisory groups meet again after making recommendations, members find that the recommendations have been compromised in the direction of the governmental users.

Dr. Hilton then began with his discussion of the base year work; his first comments were primarily historical. According to Dr. Hilton, the study got underway when RTI conducted the pilot and design study and created preliminary drafts of instrumentation and test procedures. After a competition in the fall of 1971, ETS began the base year field operations in the early spring of 1972. Dr. Hilton related that from the outset the schedule for ETS was extremely tight; therefore, instrument revisions were subjected to only very minimal pretest procedures. In retrospect, the assumption

that students (rather than schools) would be the more serious problem was false; as it turned out, students followed instructions much better than field survey administrators. There were massive scheduling problems involved in collecting student and school data before the end of the school year, especially where schools closed in May. This entailed collecting data through the summer, and data collection finally terminated on 15 August. Between August 1972 and January 1973, the data base was completed and edited so that analyses could be started. By February, sufficient preliminary results had been achieved so that an American Educational Research Association presentation could be made. A rough draft of the full report of the base year operations and analysis was submitted to NCES in April. Data analyses were completed on 6 July 1973 after calculations of coefficients of variation for the measures in the base year study.

Shifting to a discussion of technical aspects of the sample design, Dr. Hilton explained that there were 600 final strata with two schools per stratum in the primary sample and two schools in the backup sample. With 18 students selected from each of the primary schools, the primary sample size was designed to be 21,600. There were, however, 251 schools in the primary sample which refused to participate in the base year study; through the efforts of NCES staff, virtually all of these schools were recovered and will participate in the first follow-up survey by supplying school record information for selected students.

There was some discussion among the conferees about the meaning of the phrase "refused to participate." Dr. Chandler clarified it by explaining that it was not a lack of interest or lack of willingness to participate; it was so late in the school year when they were contacted that many schools just did not have a free day in their schedules. Many schools close early compared to others. Thus, it was inability rather than refusal to cooperate.

Dr. Hilton commented that in his opinion NLS has an excellent sample. The base year data show that schools with high minority representation or low levels of average income are not underrepresented; if there is any underrepresentation suggested by base year analysis, it is in small, rural Southern schools, and this relates to the fact that these are the schools in the country that close earliest. At this point, Dr. Hilton described in detail each of the data collection instruments used in the study and used descriptive

tables to illustrate. His touching lightly on the composite variables which ETS had created out of the basic data, using the student ability composite as an example, brought on a discussion about the analysis prospects for the base year data.

Dr. Hilton stated that what had been available and discussed so far were examples of the many descriptive statistics that had been generated. According to him, the contract called for ETS to complete a three-part analysis program: the first was to be the collection of the kind of zero-order descriptive statistics that he had been discussing; the second, the construction of composite variables; and the third, an examination of the interrelationships among the variables--a kind of in-depth analysis of the data. Because of budgetary constraints, however, the third part was dropped. Dr. Lane interjected a question about whether or not he was correct in his assumption that no one is committed to look at the data in detail and to write them up. Dr. Hilton and Dr. Chandler both agreed that, although there is not now an outside-NCES effort to analyze the base year data in this manner, some of this will occur in connection with the first follow-up study by RTI. The true value of the base year data will be realized in its relation to the first follow-up data.

Discussing the tables which he was presenting, Dr. Hilton identified some problems and discrepancies which had been found in the school questionnaire information. Generally speaking, percentages on certain categorical data (e.g., ethnicity, school programs) do not add up to 100 percent in the marginal totals. These types of errors appear to be the results of judgments made by survey administrators in the schools. ETS is resolving these discrepancies. These kinds of problems led Dr. Hilton to recommend that, in any similar data collection effort, survey administrators not be used. Questions which require the survey administrator to categorize information from transcripts are particularly difficult, and this may best be done by professionals at the research organization. A separate ETS study of 50 of the schools in the sample, with ETS professionals accomplishing independently the survey administrators' functions, supports this recommendation.

Dr. Hilton presented several more descriptive tables, and conference members discussed some of the characteristics and the findings indicated. Then Dr. Davis started bringing the meeting to a close by commenting that,

although it is very hypnotizing looking at data as exciting as these, the prospect of pushing on with questions that they bring up is very tantalizing. There is so much in the study, given the kind of sample and the kinds of data, that one hardly knows where to start. He declared that during the next day and a half of meetings the conferees will come to grips with basic problems of the educational system in our society.

Dr. Davis said that we have a good sample of students. We know something of their high school experiences, their attitudes and aspirations, their opinions, their optimisms and pessimisms, and their feelings on how much they can control the future. We have basic data on sex, ethnicity, socioeconomic status, and parental aspirations. We have test scores that may indeed give us some insights into how the system in which they are continuing may treat them. We have the capability to deal with some of these basic issues.

Dr. Davis charged the group with a series of major questions that the conferees should be addressing during the rest of the conference: What are the major issues we have to be concerned with? What are the inequalities that we face? What are the major deficits in our system of public instruction? What is the picture with regard to access to educational opportunity and, alternatively, to vocational education? What data do we have that relate to these questions and to the basic purposes of the study? What kinds of quality of life variables should we be concerned with that we can trace back to individual traits and hopes, to school expereinces, and to post-secondary institutions, in terms of improved policies and a better instructional climate?

Dr. Davis closed with the conviction that, no matter how seductive the endless tables are that we can generate, these basic issues must be grappled with.

National Longitudinal Study
First Follow-Up of the Class of 1972

First Planning Conference: Second Session
Monday Morning, 5 November 1973

Research Design for the First Follow-Up Analyses

Mrs. Gilford opened the second session by thanking all the participants for coming to the meeting in such inclement weather. She mentioned the current status of the study: the first follow-up questionnaires are now in the field being answered by respondents, about 16 months after graduation from high school; NCES is planning a second follow-up questionnaire for October 1974--when many respondents will either have completed two-year programs or have begun the detailed studies of four-year programs, and many will have had a significant amount of experience in the working world. She stressed that the overall purpose of the planning conference is to have meaningful input to the progress of the study and that, accordingly, participants had been selected on the basis of their backgrounds to provide help, to isolate problems, and to make recommendations for the kinds of information and analyses that would be useful for successful implementation of study results. Mrs. Gilford then asked for short introductions by each of the participants.

After the introductions, Mrs. Gilford proceeded to set the stage both in general terms for the conduct of the rest of the conference and in more specific terms for the activities to be under consideration during this session. Indicating that she had had occasion to present some of the findings from the base year data to a committee on evaluation and information systems, she said that the data have generated a great deal of interest in many segments of the educational research community and in various agencies of the Federal Government. She cited a typical finding that engendered Federal interest: roughly a quarter of the students surveyed in the base year did not know enough about Federal grant programs to be able to answer questions about them. Even though this is based only on first summary data, Mrs. Gilford's staff has already started to move in depth to find out whether the students that make up that 25 percent have any special characteristics (e.g., all being from rural schools) so that information can be provided to program managers

to improve dissemination activities. Although this is but one small example, it does indicate some of the areas which could profit from successful conclusion of the NLS.

The purpose of this session of the planning conference was to investigate the tentative priorities for the first follow-up data analysis. In particular, the discussion this morning was first to look at the kinds of data which are available from the base year survey and from the first follow-up survey and then to determine what kinds of analyses this group would consider to be the most important. Mrs. Gilford stressed that there are endless analyses which can be made, that the data tapes will be made available to the user community in the future, and that this conference needs to focus on those analyses which will have the most value to NCES in making recommendations from the results of the study.

Mr. Fleming started the discussion by indicating the area for analysis which was of particular interest to him--that being the vocational-technical education (Voc/Ed) area. The original sample of the study was designed, he said, to have a large portion of students from schools with Voc/Ed potential because it was felt that this was one of the areas not being reached successfully by various Federal programs. Specially built into the NLS is the capability to view at least parts of it as a Voc/Ed impact study to see if Voc/Ed programs in high school are effective in helping respondents find jobs when they leave school; if so, did the respondents use that education and what are their evaluations of that education? Thus, one of the purposes of the first year follow-up (and those of subsequent years), according to Mr. Fleming, will be to try to examine the activity states that these respondents found themselves in at those times. In retrospect, analysts can see what elements (e.g., attitudes and availability of positions) took those individuals from one particular activity state to another; that is, what actually made those individuals select particular areas.

After ruminating for a few moments about the usefulness of longitudinal data for policy decisions based on assessing the national needs and the knowledge of students and about how these might relate to the 21,000-member respondent sample of the study, Dr. Rivlin made the point that the conferees should be considering not only the analyses to be conducted but also the subgroups on which they would specifically want to focus, and perhaps to ask questions

of, that are quite different from some other groups. The capability to do this depends, she said, on the degree of oversampling as well as the degree of specificity of questions relative to particular groups. Getting into more detail on this subject, Dr. Hilton suggested that one of the basic questions might ask to what degree respondents consider themselves successful in realizing their previously stated plans. A key question might ask for the identification of the reasons for change in activity states. Other possible questions were: What are the characteristics of students who planned to go into work but who decided instead to go to a two-year college or a vocational-technical school? How satisfied are they with their change? Dr. Hilton thought that relatively simple kinds of descriptive analyses would provide some answers to these kinds of questions.

But Dr. Eckland raised a question about the reality of a person's aspirations. Dr. Hilton replied that observed changes by no means imply that a student has failed. A student's final activity state may be a much more realistic solution to his own career development problem than his original plans were. The point was made that the question of reality of aspirations needs to be handled specifically and directly in any analysis. For example, whether or not people really want a particular kind of education or a future activity may be looked at by an assessment of whether or not they are working for it in some reasonable way. Do their capabilities and current actual accomplishments bear positive relationships to those aspirations? Complicating the issue, added Dr. Davis, is the very powerful fact of selectivity operating not only in institutions of higher learning but also in the vocational fields themselves.

Dr. Lane said that, in spite of there being information from the base year questionnaire about aspirations of respondents at that time, it would be valuable in future follow-ups to find out whether or not the respondents remembered what their expectations and goals were. It was suggested by Dr. Rivlin that this might be a very good subject to bring up when the planning conference talked about the design of the second follow-up questionnaire. However, Dr. Lane still wanted to explore the possibility of using interviewers on a few sample cases in the analysis of the first follow-up data and focusing some clinical investigations on particular problems of particular groups in the general area of aspirations and attainments in certain

activity states. Mrs. Gilford replied that, although she certainly would not want to rule out the possibility of such a special study of some group which appeared to be of particular interest to Federal policy, it should be discussed only if the data from the first follow-up produce a sufficient interest to warrant it.

Dr. Rivlin then asked if NCES planned linking the NLS data with data from other sources--for example, the Social Security files. Would files such as these provide a relatively cheap source of data for arriving at earnings information which would help in understanding the longitudinal study respondents themselves? Mrs. Gilford replied that NCES had considered such information, but it would pose problems because individual data would not be provided by the Social Security Administration. It would have to be done in groups of individuals if at all.

Mrs. Gilford then shifted the topic of the conversation by requesting the planning conference members to suggest specific analyses of the data which would help NCES and the contractor directly in the analytic activities to be conducted on the already established questionnaire and data base.

Dr. Eckland suggested an analysis to look carefully at those items in the questionnaire for which there was particularly heavy response in the "other" category. This would lead to the refinement of questions and response options for the second follow-up. Dr. Davis suggested a close look at respondents who appear to have achieved what we really might expect them not to achieve, expecially as opposed to that portion of the sample who achieved as expected and as aspired. Agreeing that such an analysis could perhaps give insights into the regularity or irregularity of people's career patterns, Dr. Lane went back to the consideration of a special group, such as Voc/Ed. His comments dealt more with the design of the second follow-up and stressed that it was scheduled at such a time when critical changes in activity states would be occurring. This might suggest the design of a special questionnaire for respondents in special activities at that time.

Mrs. Gilford brought the discussion back to analysis issues for the first follow-up, and Dr. Cleary asked how the analysts would handle changes in "status." For the individual, Dr. Cleary said, the analyst does not know which way perceived status is moving. The analyst should be able to examine changed activity states without imposing value judgments on those activity states.

Dr. Rivlin suggested a different way of looking at the issue -perhaps by using the 1972 first follow-up study to suggest hypotheses that might be tested in 1977. In her mind, at least two hypotheses had come out of the discussion to this point. For example, one might hypothesize that students of equal ability and financial status are more likely to go to college if they live near a college than if they do not. In this example, for 1977 one might plan a natural experiment which could involve intensive informational activity with people who live significantly distant from colleges, and test whether or not that makes any difference. Another hypothesis could be that those who have failed to reach their goals are those who know the least about Federal programs that are available to them. The treatment for 1977 analysis could be to improve the information that the Federal Government gives out to certain classes of students that could be identified. This, in Dr. Rivlin's view, could be a useful way of looking at an analytical process which might be followed in the first follow-up analysis phase. Other conference members thought that this appeared to be a very good, although unprecedented, idea for this longitudinal study.

Mrs. Gilford brought the discussion back to aspirations and attributes by mentioning the attempt, in a development study sponsored by OE, to measure the successes of vocational plans by matching sets of aspirations and attributes. Dr. Hilton amplified some of the problems with this type of study by asking about the highly able student from the high income family who just does not want to go to college and would prefer to earn his living in a manual skill, such as carpentry. Has he failed? Has our educational system somehow failed with this man who is in one sense wasting his abilities? In Dr. Hilton's view, this kind of question is only one of many which refer to values and therefore involve value judgments about what the good life is or what constitutes success. This is a hazard of the study. Another more important hazard in Dr. Davis's view is that there is almost too much data with so many ramifications. In particular, as director of the project at RTI, Dr. Davis needed to have the conferees discuss some priorities with regard to very specific questions. He gave as examples: What are the impacts of various forms of financial aid? What are the interactions that tend to moderate that impact? What is the effect of counseling?

Some of these questions were picked up by various members of the planning conference. Dr. Rivlin suggested that looking at the impact of financial aid

may be suggesting some kind of causality. Dr. Bachman suggested a strategy that has a number of different levels of analysis. He described a continuum. At one end would be questions designed to be descriptive or broadly hypothesis-generating to provide general social science information and ideas which could be pursued more specifically with particular groups. At the other end would be questions from particular agencies concerned with particular actions or sets of policy issues. These two types of analyses might proceed somewhat separately, but conferees should be thinking about the two as different kinds.

Mrs. Gilford's response to this idea was that, for the purposes of this meeting, it would be more desirable to concentrate on the more general issues and more general questions because the more detailed data-gathering and analysis activities are parts of the specific programs themselves.

Dr. Lane suggested that a specific analysis effort might be to look for discontinuities in achievement. That is, if the best predictor of years of schooling to be obtained by individuals has been the years of schooling obtained by either of the parents, then the underachievers or overachievers (by these criteria) should be examined to discover what other experiences--such as counseling--might be related to that discontinuity. Dr. Lane opened the subject of relating high school characteristics to respondents' behavior after high school. Most of the conference participants seemed to feel that this did not promise much future: Dr. Cleary said that she would not look for a production function out of these data; Mr. Maw indicated there would be considerable variation among individuals within the schools; and Dr. Rivlin cautioned against another school effects investigation, if these effects are to include age of building and other items in the base year school questionnaire. Mr. Maw countered the effects argument by suggesting that perhaps a new definition is needed for school effects--a new way to aggregate the data so that differences in various dependent variables can be detected. In this manner, agreed Dr. Hilton, we might be able to demonstrate that schools do have a substantial impact in very specific ways.

Dr. Lane mentioned that useful data can be lost. Within many schools, he said, there are specially mandated programs which are not showing up in the aggregations of data currently being used. In the specially high counselor-student ratios, student differences are obvious but cannot be found in normal data analysis.

Dr. Cleary stated that, in her opinion, the major underlying consideration in assessing school effects is that they should not be seen as affecting equally each of the 18 sampled respondents. Using the individual as the unit of analysis, one should look at the characteristics of the schools as they relate to that student and as they relate to what the individual has seen, heard, anticipated, and experienced. Dr. Rivlin put it another way: we need to know the characteristics of the educational experiences of the students in the schools.

Mrs. Gilford then asked the conferees if there were any subgroups in the sample which would be of special interest for the analysts to consider. Various income groups, ability levels, regions, and others were suggested in the conversation which followed. Dr. Eckland stressed the importance of being able to separate contextual effects in order to clarify intergroup comparisons. He has found in his research that SES contextual effects can be separated from ability contextual effects within particular groups and that striking differences can be found when the effects are considered independently which are often masked by a priori grouping. This seems to imply, said Mr. Maw, that the unit of analysis must be the respondent: it is the respondent's experiences that we need to be analyzing.

The subject shifted to a consideration of one particular kind of experience which seems to be prevalent and which, in Dr. Lane's experience, seems to have particular relevance. He suggested that a student in south Chicago with an SAT score in the top 2 percent of this class would have learned that he is a scholar and therefore should be able to get through a university even though he may be marginal in comparison with other Americans his age. But, when he and his family move to Evanston, he will discover that he is a rather ordinary student, that he should not have such high aspirations, and that his class rank is not the same. And yet, instead of going to a high status college, he is likely to end up at the University of Chicago. In more general terms, Dr. Lane said, the only way that a student can get a doctoral degree is by always keeping in the top 7 percent of his class. It does not matter whether he graduates from the University of Chicago or from Yale University--just so he graduates in the top 7 percent. Graduate schools accept bachelor degrees from both; they do not accept the 50th-percentile student from either one.

Mrs. Gilford moved the discussion in another direction by suggesting that the group consider criteria for measuring the quality of personal, societal, and developmental achievements of individuals. Do you impose on the respondents some of society's decisions that the more educated a person, the better off he is? This may be perfectly legitimate and may constitute one uniform set of analyses. But certainly there is another side which is usually ignored: Is this what the person wants to do and wants to be? Perhaps he would like to be a happy carpenter.

Dr. Hilton suggested that we have a unique advantage with NLS because we will be able to go back to earlier questionnaires and see what goals and values the respondents indicated as applicable to themselves. Many kinds of success criteria (absenteeism, personal health, PTA meetings, etc.) have been examined in research with which Dr. Hilton is familiar, but none have worked out particularly well. We do have a chance in this study, he said, by its successive follow-ups to develop more meaningful measures. Dr. Lane interjected that certainly one of the more meaningful things in life is living arrangements and that living together seems to have a serious achievement effect in higher education. However, the conference felt that this is a sensitive area and that people may not answer questions relating to their personal living habits.

Dr. Rivlin asked to what extent the first follow-up questionnaire provides data on how aspirations have changed since the high school years. This brought the discussion to change scores, at which time the point was made that there should be a different way of thinking about dependent variables with longitudinal data. Using self-esteem as an example, Dr. Bachman mentioned that, if you were to identify people who change in self-esteem, those who change in a positive direction would be the ones who had low scores initially. You may also find other kinds of change relationships which are not easily understood, and these may be due more to the nature of the change score rather than to the actual relationships. He declared that he would not use change scores in the longitudinal study without many safeguards. He and Dr. Hilton agreed that scores should be looked at separately at both points in time and that the analyst should see if the pattern of relationships on some other variable had changed also. In that way, some sense can be made of the difference between a prescore and a postscore. This would be much preferable to calculating either adjusted or unadjusted change scores.

Dr. Eckland brought up the subject of composite scores--more specifically, the necessity to calculate a composite SES index. He suggested that RTI conduct preliminary analyses (the scope could be guided by this planning conference) to determine which sets of items work together for such an index. Various items which could be included were discussed in some detail, with Dr. Eckland guiding the discussion. In analysis of his own data (using Sheaf coefficients), many of the items which normally comprise an SES index seem to reverse their signs and to have depressing effects when considered separately in relationship to other dependent variables. This has led Dr. Eckland to be very suspicious of composite measures.

The discussion of specific analyses to be carried out ended as questions were asked about the availability of other materials on the longitudinal study. Mrs. Gilford indicated that copies of UCLA's summary report of previous longitudinal studies are available at NCES in a limited supply for loan and that copies will be printed by the Government Printing Office soon. Additionally she indicated that the ETS production of tables of the base year data is available on a loan basis from NCES. With respect to data tapes on the base year information, Mrs. Gilford indicated those would be available soon. A question, however, that she wanted to explore with the group was whether or not these tapes should be made available before the base year resurvey data were added. Her concern was that the additional data could significantly change the relationships of the other data and that there would be a real possibility that researchers would go to print with two different sets of data. This could be confusing to the general public as well as the research community. The conferees felt that perhaps NCES should release a summary of what will be on the tapes when they are available so that people could begin to make proposals to do research. There is a substantial amount of leadtime necessary, and such a summary would be very useful.

The meeting ended on this note, and the group adjourned to meet later that day.

National Longitudinal Study
First Follow-Up of the Class of 1972

First Planning Conference: Third Session
Monday Afternoon, 5 November 1973

The Design of the Second Follow-Up

Mrs. Gilford opened the session by stating that the purpose of this session is to discuss the design and content of the second follow-up, scheduled for October 1974, in just about a year. Students who have been in junior colleges should be just coming out, and students who are in four-year colleges should be just making the transition to a specialized major. Other respondents, those who have been in neither a junior nor a four-year college, will have had some very different experiences in many very different activity states. The focus of the afternoon discussion, then, was to be on exploring what kinds of information would be required from these three groups of respondents.

Dr. Rivlin started the conversation by noting that, in her mind, what is interesting about the second follow-up is the influence and the quality of the experience that the first two years of college have on the next choice and, in particular, on the period of transition from a junior college to a four-year college. Nobody seems to know very much about this very difficult transition. There was general agreement among conferees that an immediate count (or percentage) of students making the transition is probably straightforward but that the quality of the experience is both interesting and unknown. Of critical importance would be college characteristics which would turn colleges into a "revolving door" rather than a continuing experiece. There appear to be very little data on this point. Trying to collect such data from colleges might be difficult because they themselves often do not know which of their students are "serious" and which are not. Although it might be easy to arrange for access to other data bases in which characteristics exist for colleges which are a part of this sample by virtue of respondents' attendance, we would still be trying to focus on the student in the transition. We would be trying to discover to what extent individual ability is affected by individual high school experiences, two-year college experiences, or anything else. The conversation went on at length about attrition rates

of institutions and the effect that these rates might have on individual student attainment. That this is an important consideration was made clear by Dr. Lane, who pointed out that we may end up by saying that some of the 22,000 respondents are not serious students, when in fact that proportion has not been in serious institutions.

As to the reliability and validity of the data which an institution could give about itself, one of the aspects stressed by Mrs. Gilford was that very often the institutions do not know what happens to their students when they leave. Neither do they know which of their students are using the junior college as preparation for a senior college experience or as terminal education in itself. Another problem would arise in trying to aggregate the two-year college experiences: the two-year institutions in four-year college environments are different from ones in community college environments, so the programs in the two institutions often differ significantly.

Dr. Lane suggested that this subject should be explored exhaustively before the second follow-up is fixed. Mr. Silverman asked if a data form, comparable perhaps to the base year high school questionnaire, should be put together to collect institutional information that might be relevant to the problem under discussion. One of the areas of interest on this data form would be the institution's dropin-dropout rate. The rate could be quite important to an individual student, because he may have been in an institution where he had only a minimum chance of completion due more to school characteristics than to his own characteristics.

In response to a suggestion from Dr. Donahue about trying to think of ways of collecting these data without using a form, the conferees found few alternatives. Dr. Lane was concerned about respondent group characteristics for those who begin postsecondary education immediately, but continue for a short period; those who attend continuously; and those who do not start immediately, but do eventually finish. But Mr. Silverman stressed that the subject being discussed was quite specific to characteristics of institutions rather than respondents.

Mrs. Gilford asked: Would there be anything else that we would want to ask them if we send a questionnaire to postsecondary institutions? One suggestion was the ability environment of the school. This ability environment could be, it was suggested, gained by access to other data sources such as

American College Testing Program, which has information on selectivity measures for specific institutions. However, Dr. Rivlin indicated that she might want to go about it in a different way. If we are interested in the impact of characteristics of higher education institutions on student behavior, she said, we are unlikely to find out anything this way. She stressed that the beauty of NLS is that we have a large sample of students and an opportunity to find out a lot about them. The concentration really should be on their perceptions, their experiences, what they think has happened to them, their disappointments, and their satisfactions. This approach would be much more rewarding than trying to match respondents with school characteristics as independent variables.

Led by Mr. Silverman and Dr. Hilton, the conference members agreed that, while this was a promising approach, it would still be necessary to view school characteristics as intervening variables, since there are kinds of institutions which act as "gatekeepers" and have a very crippling effect on the educational careers of students. One of these gatekeeper variables can be the attrition rate of the school that a respondent attends. Other variables that Mrs. Gilford brought up were the school's accreditation status and the student's perception of the cost of attending compared to the availability of financial aid.

Dr. Rivlin's student perception concept was taken up again as the discussion shifted to vocational education. What about the advisability of trying to assess the respondents' perception of manpower needs in the labor market? This assessing could help us know whether or not the school is really helping the student to do what he wants to do or whether the school's vocational programs are simply filling manpower needs. Dr. Cleary suggested that high unemployment and turnover rates could be good data sources for developing a theory that explains behaviors and perceptions of people in vocational fields. This approach would take the form of assessing why people are looking for jobs and why they left their last jobs. Mrs. Gilford supported this idea by commenting that unemployment data suggest that unemployment is by no means uniform. There is a fairly small group of young people that move around a lot, and there is a fairly large group that find steady jobs quite quickly and stay in them. NLS might be useful for verifying those data and figuring out why they occur.

Ms. Lovell suggested that some research with which she was familiar indicated that dissatisfaction was key. Additionally, she suggested the possibility that a one-page questionnaire, or perhaps a post card, be sent to potential respondents in order to classify them for a later, more detailed questionnaire relevant to their activity state. Dr. Hilton suggested that one way to approach the satisfaction concept might be to query respondents about the decisions they made after high school--to ask them if they now (some years after graduation) believe those to have been realistic decisions or if they would make those same decisions after having the experiences that they have had. However, several persons in the group doubted the reliability and validity of such retrospective questions. Mrs. Gilford underlined the seriousness of this line of thought by stressing that one of the things that OE needs is information to help redesign educational programs where necessary; thus, if individuals were to indicate dissatisfaction with particular programs, we might be able to get some information.

A related subject was introduced by Miss Milne's suggestion that it is important to know how a person over the years acquaints himself with the reality of the outer world. How is he adjusting what he wants to do with what the rest of the world is doing and with what the needs of the rest of the world are? She stressed her interest in the mechanism of this situation. Dr. Rivlin suggested that this might be approached by asking about information respondents wished they had had at the time they made certain decisions; bearing on this, Dr. Hilton and Mr. Silverman suggested, are the needs of the NLS study for information about local job markets, geographic mobility, and manpower needs for the times when those decisions were made. In particular, Mr. Fleming indicated that he felt the project should know if the respondent took into consideration the manpower needs (either future or present) in making his schooling and vocational decisions. This comment reminded Dr. Chandler of proprietary career schools: they should be considered in the second follow-up, not only to assess the characteristics of particular schools in this field but also to find out if the students are reasonably satisfied with what they received there.

On the subject of individual contributions to society, the conferees discussed various aspects of getting data on individual growth, ability to establish stable relationships with people, development of personal values, and maturation of judgment. Mrs. Gilford expressed interest in knowing whether or

not the project could move into the area of citizenship performance (e.g., by examining voting records); Dr. Eckland was interested in moving into the area of development of personal values; Dr. Lane expounded on the idea of assessing individual progress in transferring from parental responsibility to personal responsibility; and Dr. MacGillivray mentioned the importance of doing research on changes in patterns of judgment and of stressing the idea that students in college are essentially different persons than when they were in high school. The conference members, however, agreed that these types of topics result in questions which are controversial and which could damage future follow-ups. As Dr. Eckland put it, the trick will be getting into the questionnaires noncontroversial items on controversial topics. As a way of relieving the necessity for making decisions at this time on specific items, Dr. Bachman pointed out that some topics are relatively perishable and some are not; perhaps, therefore, the consideration should be directed toward criteria for selection and priorities.

Mrs. Gilford closed the afternoon session by stressing that there are many ways to do this. The morning discussion had led to about 10 times more information than could be gained in a single follow-up, so the criteria for selection of a reasonable necessary amount will be of prime importance to the project.

National Longitudinal Study
First Follow-Up of the Class of 1972

First Planning Conference: Fourth Session
Tuesday Morning, 6 November 1973

The Design of the 1977 Cohort Study

Dr. Chandler opened the final morning session by identifying the topic as the research potential and priorities for the longitudinal study of the Class of 1977. She indicated that much of what was said in the previous sessions has had fairly direct bearing on the thoughts for the 1977 study; at least by implication, many of the topics that cannot be pursued in the 1972 analysis should be considered in the 1977 study. For example, the very interesting discussion of high school data and the sorts of information that would be likely to yield useful output has had a bearing on thoughts for the Class of 1977 study. Several people have contended that many of the data items collected for 1972 were not likely to yield important findings and that certain variables describing a respondent's high school experience may not be crit..al. There were also discussions about technique and procedures--whether to use multiple types of surveys for different subgroups, what to do about dropouts from the Class of 1972, and the possibility of using screening post cards before mailout of questionnaires.

Dr. Chandler noted objectives other than those of tightening and replicating, and she called attention to the matter of dropouts. What can we learn by a limited study of dropouts by identifying the cohort, the schools, and the sample early in doing some work with them? From almost the earliest of planning meetings for the Class of 1972 study, one finds mention of the importance of getting information on dropouts (even limited information) in order to have a more complete study of the group. It appears, she stated, that the planning conference time should be divided between two topics: aspects of the Class of 1977 study which are comparable to the 1972 study and the potential for studying dropouts.

Mr. Silverman started the discussion by suggesting that the differences in concepts of dropouts may range from permanent to temporary (the latter being know as "stopout"). The current best predictor of any kind of dropout appears to be, according to Dr. Bachman and Dr. Hilton, the age of the respondent.

But Dr. Hilton suggested that, rather than studying dropouts, we should focus on identifying students who have a very high probability of dropping out (on the basis of research) but who do not drop out. It seems important to study the characteristics of those who stay in under conditions created by family background characteristics, educational press, amounts of support and encouragement, and school characteristics which tend to push people out of the system. Dr. Lane focused the question even more succinctly: Should the sample be selected when the Class of 1977 is in the 10th or the 12th grade? Arguments in support of drawing a 10th grade sample came from Dr. Berls, who said that there are stronger arguments now than formerly against forcing people to remain in school, and from Dr. Davis, who said that we must study them before they drop out in order to begin to know much more about how the system may be changed to retain larger numbers of students. Ms. Wolfe suggested that dropping out may be linked with preleaving job experience.

Dr. Lane asked if funds were available to move ahead, pick up the sample in 1974, and start working on it. Responding for NCES, Dr. Chandler said that the fiscal year 1975 budget was not available yet, so there could not be a definite answer. It did not seem likely that a really thorough study of the causes of dropouts could be done within budgetary limitations. At the very least, a sample could be drawn, and a record of their names and their last known whereabouts could be kept so that they could be traced. To be realistic, Dr. Chandler continued, the conference should focus on gaining suggestions about how much we can learn from a fairly minimal study. In an effort to shift the costs, Dr. Lane asked whether it would be reasonable to suggest or request the schools themselves develop additional kinds of supplemental records to provide better sources of insights and hypotheses. Dr. Eckland underscored this idea by stressing that we are now in a Class of 1972 study looking at seniors who do go somewhere. Much of the decisionmaking occurs before the students reach their senior years, and we do not know much about the decisionmaking. If we want to understand anything about the Class of 1977, we are going to have to pick them up sooner. The group seemed to feel throughout the discussion that moving the study back to about the 10th grade was desirable.

The discussion raised questions by Dr. Mautz. What problems are we trying to get at? What are the purposes of the study? Are we interested in what causes dropouts? Or are we simply interested in the fact of dropping

out? If we are interested in having in-depth information, the study changes rather dramatically.

Shifting the emphasis from high school dropouts to dropouts from higher education, Ms. Lovell expressed an interest in individuals who have been retained in high school against their will in order to get credentials to attend colleges from which they later drop out. Dr. Cleary mentioned a related phenomenon of early college admission, which could be considered as a category of high school dropouts with a "good" purpose.

The discussion shifted to the more technical aspects of sample design, sample selection, and expense in following students wherever they go. Starting the response, Mr. Nisselson mentioned the possibility of building up state samples in order to answer questions of concern to individual states and to aggregate sufficient data to relate student change. He was suggesting the possibility of urging states to supplement analytics with the creation of additional samples, at least to begin with. Even though Dr. Cleary felt that answers to questions about particular state policies surely cannot come within the framework of the current small state samples relative to the national population, Dr. Davis suggested that the study must consider what kinds of questions can be answered on a national scope which would still have particular relevance for states. What are the issues that state boards of education and higher education are considering that could be in the NLS instrumentation?

As the only state representative at the conference, Dr. Mautz indicated some of his concerns. The short-time degree program, the problem of access to higher education, the percentage of educational costs that the student has to bear, the personal transition from the high school experience to the college experience, the retention of students within programs, and program responsiveness to the demands of society as well as the demands of students--these are the kinds of issues with which higher education planning at the state and institutional levels is being concerned. Dr. Lane zeroed in on the problem of transition by speculating that now students go to college less prepared for the immediate work demands of the freshman year than they were when they completed the 11th grade. He noted that high schools may need to keep students in the 12th grade because of local funding requirements. Also, specific problems may emerge for brighter students; other problems for less bright students; and the data should allow us to look at the in-between students. Dr. Mautz amplified these comments by discussing the fact that a lot of people do not

appear to be interested in the hard work necessary to attend the program even on a sporadic-course basis. As you increase the availability of and access to the universities, there is a large pool of people who seem to want to attend the universities, but that pool rather rapidly diminishes apparently due to this reason. Thus, Dr. Mautz shifted the focus on dropouts from the high school to the university level: depending on whether the study was more interested in knowledge about individuals or knowledge about education, it could be important to look at students who have dropped out from a university but have gone on with creditable and useful education from proprietary sources.

Dr. Eckland put together both the high school and the university dropout situations by commenting about the American educational ideal. We seem to be disappointed that popular trends to idealize higher education for everyone have not been realized. One of the reasons could be that we have been moving toward creating job opportunities for dropouts; perhaps we have been so successful that the job opportunities are more attractive than continuing education. He suggested that we should gear our thinking to that reality.

That this reality can lead both to increased and decreased higher education enrollments led Mr. Silverman to ask what kind of longitudinal design would be of use to states concerned with either of these two possibilities. However, discussion of the higher education dropout situation appeared to be at a halt.

The subject shifted back to the high school dropout situation. Dr. Lane indicated his preoccupation with the kinds of information needed about the schools and noted an example of the flexibility and rigidity of programs in grades 10 to 12. He felt that we cannot identify the kinds or mixtures of programs at schools sufficiently well to do us any good. Dr. Hilton followed up Dr. Lane's comments with an anecdote illustrating from his research some of the more subtle yet pervasive aspects of high school; this involved a very critical educational decision which is sometimes made for the student by a high school counselor as early as the 8th grade and which shows the need to know about procedures and practices within schools. These are the kinds of processes that we need to study by longitudinal design, said Dr. Eckland; the only way that we can get at them is by longitudinal design, so we should be pushing this design down to the earlier grades to insure that we can understand the dynamics involved.

Ms. Lovell asked if it were possible to get meaningful data from these studies to the school superintendents—data that would help them think about some of these educational issues. The group felt that only a very unusual school superintendent would have the perspective necessary to get guidance from the study. Most superintendents are oriented to budgets, enrollments, and resources; thus, the impact from this kind of survey for that kind of superintendent (or administrator) would occur only on a very long-run basis. Dr. Davis and Dr. Chandler discussed the intended audience for the study, and Dr. Davis suggested that either the general assemblies or the educational committees of the states, rather than school superintendents, might be the more appropriate recipients.

The more technical and substantive aspects of sample design came before the group with Mr. Collins raising a question about 1977 sample design. Should there be a certain amount of overlap with the 1972 study? If so, what kinds of information should be looked at in the overlap for the overlap to be an advantage? Dr. Lane wanted to know if there were any insights into this question which could be gained by an analysis of the data contained in the 1972 school questionnaire. Dr. Eckland suggested that it makes a difference only if the designers of the study are really interested in changes within the structure or the organization of schools themselves; in that case, they would need information on some of the same schools. Technical aspects of how much overlap is necessary to be able to make certain comparisons to a certain degree of statistical reliability are quite apart, said Mr. Nisselson, from the more fundamental question of what kinds of data we want, to be able to take advantage of the fact that we are overlapping. According to Dr. Eckland, overlap might not be necessary at all, if there are no disadvantages other than precluding answers to some questions that are not of central importance anyway. Dr. Bachman brought the group back to the previous session's discussion of the apparently poor prospects for school effects evidenced by base year data. If school effects revealed themselves more vividly, there would be much more reason to think about getting many of the same schools again to look for shifts in the kinds of things that they have been going through. There must be, therefore, strong substantive reasons for going back to the same schools--more than simply to have them included in both samples.

Dr. Chandler shifted the discussion to the question of what subgroups of secondary school populations--for example, Mexican-Americans and native Americans—should be oversampled with special studies. The problem of how many different groups was brought out by Mr. Nisselson, who reminded the conferees that they had talked not only of program target populations, such as those suggested by Dr. Chandler, but also other groups defined in terms of educational patterns of respondents. There are cost implications involved in the trade-offs between adding small subpopulations of various kinds or splitting a larger sample into smaller groups, each sufficiently large for reliable information. Additionally, if one really tries to get information about the schools in the way that the group seems to be moving, one is really running another whole survey. Mr. Nisselson and Dr. Bachman both talked about using a large cross-sectional sample from which to derive a subsample for longitudinal follow-up. Dr. Eckland made the point that it is probably just as easy to administer things to a large body of students (rather than to specific individuals) for special administrations; therefore, the large cross-sectional sample, to begin with, might be a reasonable approach.

Dr. Hilton interjected a thought relating to the quality of data received from the schools in the base year survey by commenting that the weakest data came from the school record information form. He suggested supplementing the large survey sample of schools with a very small subsample--about 25 schools--to be studied in great detail (similar to a case study) with extensive interviews with students, parents, and school officials such as counselors and teachers. While admitting that it might be a good idea for the Class of 1977, he specifically wanted this small study for the Class of 1972 to gain additional insights into that data.

Mr. Fleming commented on one of his concerns. For the Class of 1972 study, he said, a target group with about 25 percent in vocational activities was the aim, but the sample fell a little short. He suggested that at sample selection time for the Class of 1977 we take a good look at those vocational groups and make sure, regardless of which other subgroups are picked or selected, that an adequate proportion of vocational curriculum students are obtained. This relates not only to the number of students but also to the number of schools necessary to make some statements about results. The concern about quality of data surfaced in this discussion. The problem of interpreting the

nature of courses from their names and classifying them in a summary table will become acute. Dr. Hilton's recommendation that the determination of course characteristics be left to the researchers was seconded by Mr. Nisselson, who said that it was suggested in the original meetings of advisory committees that actual transcripts be received, because one thing that schools can do well and cheaply is make transcripts. The committees advised against this procedure, however, because it tended to create more of an aura of invasion of privacy than necessary. This recommendation perhaps should be reconsidered.

Shifting the topic, Dr. Chandler asked if the members had any suggestions about how to handle individual transfers of students in or out of sample schools as the class roles change between 1974 and 1977. Agreeing that new relationships would complicate the issues, Mr. Nisselson asked if a comparison group could be developed along cross-sectional lines. In spite of Dr. Bachman's feeling that we should do the same things with the same people, Mr. Nisselson said that we may not have that comparability because of the desirability of getting comparison group data taken at the 10th grade. He raised a question of whether samples should be drawn from the schools at the 10th, 11th, and 12th grades or whether a sample of the 10th grade should be followed longitudinally as individuals. Dr. Bachman reiterated that he thought the whole show should be at the 10th grade to avoid problems of noncomparability by the successive samples; according to him, this would be a much cleaner way to go about it, and a trade-off between following these respondents every year or every two years could be developed. Other elements in the trade-off were added by Dr. Chandler, who mentioned the needs of various departments for information on the individual's transition from 12th grade to further education or work and the need for this information to be comparable to that of the Class of 1972 study. Dr. Lane made an important point about changing schools: 50 respondents from Mississippi in the 10th grade who finished their 11th and 12th grades in Scarsdale, New York, would have had totally different experiences; by not collecting school information beyond the initial sample schools, we would not be able to detect these experiences. The sampling frame of students in schools in 1974 or 1975 may, therefore, be very much different from what the schools are like for those same students in 1976 or 1977.

Realizing that the group was raising a lot of good questions which must be given careful attention, Dr. Chandler still felt it necessary to move the

discussion on to other urgent issues. What individual or demographic factors should be associated with the study? What changes in the content of regular follow-ups for 1977 seem indicated? What alternative training experiences should be listed for the dropouts, and what opportunities are there for him to return to the educational system? Dr. Mautz replied at length about the other educational experiences in, for example, national corporations, the military and its transition to all-volunteer forces, and the prisons. Failure to move on to college, said Dr. Mautz, does not indicate failure to move into a formal and perhaps high quality educational experience. Dr. Cleary agreed that in these three areas will be the major changes in the educational system of the United States within the next five years.

One of the important aspects to get into the next study, according to Mr. Silverman, should be whether or not the institution helped the person to find a job. He admitted that there would be drastic limitations to the analyses in this connection unless we could effectively compare vocational graduates to humanities graduates. College graduates seem to be suffering widespread dissatisfactions about their inabilities to get jobs. Furthermore, Dr. Berls mentioned that there is an extremely high rate of defaulting on federally insured student loans because many students are not getting what they feel they should have gotten and what they paid for, even in the proprietary schools. These types of considerations must be included in the second follow-up.

The meeting drew to a close largely because of time considerations, not for want of important issues to discuss. Dr. Davis praised the group: if we could hire as regular project staff those people who would best be able to contribute, indeed it would be the people invited to this planning conference. He noted that there appear to be three clusters of interest or expertise represented. One has to do with statistical procedures; one, with human development; one, with higher education. As RTI moves along on the study, Dr. Davis said that project staff will be in contact with one or more of these clusters of individuals to reflect on the issues and to stay in touch with the ideas as they occur. Many good ideas have come out of the meeting, and there is a great deal of hard work to do to investigate and implement those that seem most promising.